

ORDINANCE NO. 99-76

**AUTHORIZING THE CITY MANAGER TO APPROVE A CHANGE ORDER IN THE AMOUNT OF \$145,400.00 TO INCREASE THE CONTRACT OF MALCOLM PIRNIE FOR ENGINEERING DESIGN SERVICES NECESSARY FOR THE INSTALLATION OF WELL NO. 6 AND FILTER BACKWASH LAGOON REHABILITATION PROJECT AT THE WATER PLANT**

WHEREAS, a contract was entered into with Malcolm Pirnie under Ordinance No. 98-97 authorizing the expenditure of \$111,400.00 for the engineering design services necessary for the installation of Well No. 6 and Filter Backwash Lagoon Rehabilitation Project at the Water Plant; and

WHEREAS, as the project proceeded, it was decided that the existing filter backwash lagoon could not be rehabilitated without the possibility for leakage and surface water contamination, and that a new filter backwash disposal facility consisting of a holding basin, pump station and force main be constructed; and

WHEREAS, in order to accommodate the change in scope of the project, a change order in the amount of \$145,400.00 is necessary in order to complete the project as modified.

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of Mason, Ohio, **six (6)** members thereto concurring:

Section 1. That the City Manager is hereby authorized to approve a change order to increase the contract of Malcolm Pirnie for the design of a new filter backwash disposal facility consisting of a holding basin, pump station and force main, in the amount of \$145,400.00, as more particularly described on the attached Exhibit "A".

Section 2. That the Finance Director is hereby authorized to pay said Malcolm Pirnie an amount not to exceed \$145,400.00 for the services set forth in the change order attached hereto as Exhibit "A" and incorporated herein by reference.

Section 3. That this Ordinance shall take effect and be in force from and after the earliest period allowed by law.

Passed this 24th day of May, 1999.

  
\_\_\_\_\_  
Mayor

Attest:

  
\_\_\_\_\_  
Clerk of Council

April 20, 1999

R. Ernest Stickler  
Public Utilities Superintendent  
City of Mason  
202 West Main Street  
Mason, Ohio 45040-1699

Re: Filter Backwash Disposal Facility  
Engineering Services  
Amendment to Task Order No. 3

Dear Ernie:

Task Order No. 3 was developed to provide engineering services for two projects: Well No. 6 Installation and Filter Backwash Lagoon Rehabilitation. At that time, we understood that these projects had a high priority and would proceed concurrently. The estimated fee for this work, \$111,400, was based on developing separate contract documents for each project, but providing combined resident inspection services since the two projects would be constructed simultaneously. The nature of the work for these two projects has changed significantly since Task Order No. 3 was executed on July 13, 1998.

The Well No. 6 Installation project proceeded ahead as planned, but there were changes made to the project scope:

- The actual cost for the design of Well No. 6 was \$27,800, compared to the original estimate of \$27,200.
- The project was publicly bid, rather than negotiating a contract directly with selected contractors as originally planned. The bid assistance cost was \$6,500, compared to the original estimate of \$3,400 for contract negotiation.
- We estimate that the Well No. 6 resident inspection will be completed for approximately \$17,700. This resident work was originally to be performed as part of the Lagoon Rehabilitation resident work and was not budgeted for separately.

After our meeting with Ohio EPA on July 9, 1998, we discussed the potential for leakage of the lagoons, even after rehabilitation, which may remain as a possible source of surface water contamination to the well field. Therefore, we evaluated various alternatives for backwash disposal as outlined in our letter to you dated September 25, 1998. Based on this letter, you directed us to proceed with the design of a new filter backwash disposal facility which consists of a holding basin, pump station, and force main, rather than the rehabilitation of the backwash lagoons.

R. Ernest Stickler  
City of Mason

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This new filter backwash disposal facility will pump filter backwash and filter-to-waste washwater from a holding basin through a force main to a future interceptor sewer for conveyance to the Mason Wastewater Treatment Plant. Based on our preliminary sizing of the holding basin and force main layout, we estimate that the total construction cost will be roughly \$700,000. Although this cost is higher than the lagoon rehabilitation project, the backwash disposal facility will essentially eliminate any potential for backwash contamination of the well field.

As we discussed, the engineering for the lagoon rehabilitation would have been much less extensive than the backwash holding basin, pump station, and force main. The scope of the backwash disposal project, as outlined on the enclosed Task Order No. 8, Exhibit A, is significantly different than the lagoon rehabilitation:

- A cast-in-place concrete basin to hold the filter backwash and filter-to-waste washwater and a duplex pump station with automatic controls will be designed. We will also design a force main that will run south along Mason-Montgomery road to the discharge manhole on the new interceptor sewer south of Brewer Road. The nature of this project will involve different types of general contractors: one for the pump station/holding basin construction and another for the force main installation. In order to avoid having additional subcontractor coordination costs associated with completing all the work under one general contract, we propose to bid and construct the work under two separate projects. One set of contract documents would be developed for the holding basin and pump station, and another for the force main. We estimate that the design fee for the backwash disposal facility will be approximately \$101,300, compared to the original estimated lagoon rehabilitation design fee of \$18,400.
- The backwash pump station and force main projects will be publicly bid as two projects rather than negotiating a contract directly with selected contractors as originally planned for the lagoon rehabilitation. We estimate that the bid assistance fee for both projects will be \$16,100, compared to the original estimate of \$3,400 for contract negotiation of the lagoon rehabilitation.
- The construction administration and resident project representation services will be much more extensive for the backwash disposal projects. We estimate that the construction administration fee for the backwash disposal projects will be approximately \$38,000, compared to the original estimated lagoon rehabilitation construction administration fee of \$16,300. We estimate that the fee for resident project representation will be approximately \$33,900 for the backwash disposal projects, compared to \$27,200 as originally estimated for the lagoon rehabilitation project.

The revised engineering costs are summarized in the table below:

Task	Well No. 6			Filter Backwash Disposal			Total Difference
	Original*	Actual/ Estimated	Difference	Lagoon Rehab Original*	Backwash Disposal Facility Estimated	Difference	
Design	\$27,200	\$27,800	\$600	\$18,400	\$101,300	\$82,900	\$83,500
Bidding	3,400	6,500	3,100	3,400	16,100	12,700	15,800
Constr. Admin.	15,500	15,500	0	16,300	38,000	21,700	21,700
Resident Rep.	0	17,700	17,700	27,200	33,900	6,700	24,400
<b>Total</b>	<b>\$46,100</b>	<b>\$67,500</b>	<b>\$21,400</b>	<b>\$65,300</b>	<b>\$189,300</b>	<b>\$124,000</b>	<b>\$145,400</b>

Note: \*The sum of the original estimates comprised Task Order No. 3 with a total fee of \$111,400.

As outlined in the enclosed scope of services, we will provide detailed design, bid assistance, construction administration, and resident project representation for the backwash disposal facility project. During the design, we will coordinate with the Ohio EPA and prepare applications for plan approval. We will assist the City in receiving the necessary approvals from the Ohio EPA.

After completing the Contract Documents for the backwash holding basin, pump station, and force main project, we will provide bid assistance services similar to bid assistance provided for the Well No. 6 Installation project. We will provide the bid submittal documents and distribute the Contract Documents to prospective bidders. We will prepare addenda as required and answer bidder's questions. We will also attend the bid opening, evaluate the bids, and make a recommendation for award of contracts.

Subsequent to the bid assistance phase, Malcolm Pirnie will perform construction administration services and resident project representation during the course of construction of the backwash disposal facility, similar to the construction services currently being provided for the Well No. 6 Installation project.

Our Proposal and Scope of Services is provided with the understanding that geotechnical and testing services are not included and will be contracted by the City with a geotechnical and testing firm for performing soils testing to obtain necessary geotechnical data for design and for soils and materials testing required during construction of the projects.

R. Ernest Stickler  
City of Mason

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Based on the project scope changes described and summarized above, we respectfully request an additional \$145,400 for this work. Enclosed is Task Order No. 8 which amends Task Order No. 3 to include the new total compensation amount. We have also enclosed revised copies of Attachments 1 and 2 which describe the revised scope of services and payment for the two projects. If the Task Order is acceptable, we will submit the required number of executed copies for the City to authorize.

We look forward to your favorable review of our amended Task Order. If you have any questions regarding our Task Order or need additional information, please let us know.

Very truly yours,

MALCOLM PIRNIE, INC.



Robert C. Yoxthimer, P.E.  
Senior Associate

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Enclosures

3425-002

**PROFESSIONAL SERVICES TASK ORDER**

**Task Order No.: 8**

**Task Order Date: \_\_\_\_\_**

**(Amendment to Task Order No. 3)**

Subject to the Master Services Agreement between *the City of Mason, Ohio* [Client] and *Malcolm Pirnie, Inc.* [Malcolm Pirnie], dated April 14, 1998, Client hereby authorizes Malcolm Pirnie to perform services as specified in this Task Order and in accordance with the above mentioned Agreement.

**1. Project Description:** A description of Project for which work is requested is provided in Attachment 1, incorporated into this Task Order.

Client's Project Number: \_\_\_\_\_

Project Name: Well No. 6 Installation and Filter Backwash Disposal Facility

Client's Representative: R. Ernest Stickler

**2. Scope of Work:** Malcolm Pirnie shall perform its services as described in Attachment 1, Exhibits A, B, C, and D, incorporated into this Task Order.

Malcolm Pirnie's Representative: Robert C. Yoxthimer

**3. Time Schedule:** Malcolm Pirnie shall use reasonable efforts to complete the work as follows: The basic services included in Exhibit A will be completed within approximately three (3) months from the date of execution of this Task Order and contingent upon timely participation of the Client and others. The basic services associated with Exhibits B, C, and D will be in accordance with the schedule set by the City and concurrent with the required construction of the project.

**4. Compensation:** Malcolm Pirnie's Compensation authorized under this Task Order, which shall not be exceeded without prior written authorization of Client, is:

Original Task Order No 3:	\$111,400.00
Additional Amount:	<u>\$145,400.00</u>
Total Compensation; Task Order No. 8:	\$256,800.00

This Task Order's Method of Payment is in accordance with Attachment 2.

**5. Special Conditions:** This Task Order is subject to the special provisions as described in Attachment \_\_, attached and incorporated into this Task Order: N/A

**6. Amendment:** This Task Order amends a previously executed Task Order:

Previous Task Order Number: 3 Previous Task Order Date: July 13, 1998

**ISSUED AND AUTHORIZED BY:**  
CITY OF MASON, OHIO

**ACCEPTED AND AGREED TO BY:**  
MALCOLM PIRNIE, INC.

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

# PROFESSIONAL SERVICES TASK ORDER

Task Order No.: 8

## Attachment 1 Scope of Work

The following Exhibits are attached to this Task Order, Attachment 1, and are made a part thereof:

- Exhibit A: Design Phase Services
- Exhibit B: Bidding Phase
- Exhibit C: Construction Administration Services
- Exhibit D: Resident Project Representation Services

## Task Order No. 8

### Exhibit A Design Phase Services

1. **Meetings.** Malcolm Pirnie will attend a kick-off meeting with the Client in order to establish lines of communication and to introduce key individuals involved with the project both from the Client and Malcolm Pirnie. Critical features and concerns will be discussed and critical milestone dates will be established. Review meetings will be held at the 50% and 90% stages and final completion of design for reviewing plans and specifications with the Client and making any necessary revisions prior to final completion. Malcolm Pirnie will prepare and distribute minutes of the meetings.

2. **General.** Malcolm Pirnie will design the the following:

2.1. New Well No. 6 scope of services shall remain unchanged as described in Task Order No. 3.

2.2 Filter backwash lagoon rehabilitation scope of services shall be deleted from Task Order No. 3. This project was replaced with the Filter Backwash Disposal Facility project described in sub-paragraph 2.3 below.

2.3 Filter Backwash Disposal Facility:

1. Holding basin.
2. Pump station.
3. Piping, Valves, and Accessories.
4. Electrical power.
5. Instrumentation and controls compatible with existing plant control system.
6. Force main from pump station to discharge manhole.

3. **Detailed Design.** Malcolm Pirnie will prepare the Detailed Design for each project consisting of the following:

3.1 Field Investigation. Malcolm Pirnie will obtain field information required for the design, including the field survey work necessary to provide topographic data, and establish vertical and horizontal control. Property and boundary surveys are not included.

3.2 Geotechnical Investigation. Malcolm Pirnie will assist the Client to identify the location of soil borings and other geotechnical information, as required, for the Client to contract with a geotechnical firm to perform the soil borings and analysis. Malcolm Pirnie will consider the information and recommendations that the geotechnical engineer provides while preparing the Contract Documents.

3.3. Contract Documents. Malcolm Pirnie will prepare three sets of Contract Documents each consisting of Contract Drawings and Project Manual for each project:

1. Well No. 6 Installation.
2. Filter Backwash Holding Basin and Pump Station.
3. Filter Backwash Force Main.

3.3.1 Contract Drawings. Contract Drawings will show the general scope, extent and character of the work to be performed by Contractors. The Drawings will include all usual and necessary civil, sanitary, structural, architectural, mechanical and electrical features of the project.

3.3.2 Project Manual. The Project Manual will include the instructions to bidders, bid form, bonds, agreement forms, conditions of the contract, and detailed technical specifications, all subject to approval of the Client's legal counsel. The specifications will set forth the kind and quality of various materials to be placed into the construction, the type, capacity, operating requirements, and efficiency of all equipment and auxiliaries, pertinent tests and guaranties to be met, and similar information needed to assure proper construction of the project.

4. **Opinion of Probable Construction Cost.** Malcolm Pirnie will prepare Opinions of Probable Construction Costs for each project upon completion of the Contract Documents.

5. **Regulatory Approval.** Malcolm Pirnie will prepare the necessary plan approval applications and make the number of necessary copies of Contract Documents for submittal to the Ohio EPA for approval. The Client will pay for any approval fees.



## **Task Order No. 8**

### **Exhibit B Bidding Phase Services**

The Construction Contract Negotiation services as described in Task Order No. 3, Exhibit B, shall be deleted. Instead of negotiation, Malcolm Pirnie will provide bid assistance services to publicly bid the Well No. 6 Installation and Filter Backwash Disposal Facility projects.

The Work will be bid as three separate projects as follows:

1. Well No. 6 Installation.
2. Filter Backwash Holding Basin and Pump Station.
3. Filter Backwash Force Main.

The Bidding Phase will commence upon the authorization of the Client to advertise for bids and will terminate upon Malcolm Pirnie furnishing the Client with a recommendation concerning the award of a construction contract.

1. **Advertisement.** Malcolm Pirnie will provide the Client with the Advertisement for Bids to be placed in a local newspaper publication.
2. **Distribution of Bidding Documents.** Malcolm Pirnie will distribute bidding documents to those interested parties for bidding purposes. Malcolm Pirnie will be entitled to charge bidders and suppliers and other interested parties a reasonable fee for purchase of the bidding documents and will retain such fee as additional compensation above that indicated in the fee due from the Client. Bidding documents will be placed in Malcolm Pirnie's Cincinnati office and contractor and supplier plan rooms as necessary.
3. **Addenda.** Malcolm Pirnie will prepare Addenda as required during the bidding period to address any necessary revisions to the bidding documents.
4. **Bidders' Questions.** Malcolm Pirnie will respond to bidders' questions during the bidding period.
5. **Bid Opening and Evaluation.** Malcolm Pirnie will attend the bid opening and assist the Client in reviewing, tabulating and evaluating construction bids, and obtaining furnish recommendations concerning the awarding of construction contracts.

**Task Order No. 8**

**Exhibit C  
Construction Administration Services**

Construction Administration scope of services shall remain as described in Exhibit C of Task Order No. 3 and will be provided for the Well No. 6 Installation and the Filter Backwash Disposal Facility projects.

**Task Order No. 8**

**Exhibit D  
Resident Project Representation Services**

Resident Project Representation scope of services shall remain as described in Exhibit D of Task Order No. 3 and will be provided for the Well No. 6 Installation and the Filter Backwash Disposal Facility projects.

# PROFESSIONAL SERVICES TASK ORDER

Task Order No.: 8

## **Attachment 2** **Method of Payment**

### **Terms of Payment**

1. **Multiplier.** For Basic Services under Attachment 1, Client shall pay Malcolm Pirnie's Salary Cost times a factor of 2.15.

The total estimated cost of Malcolm Pirnie's services, including non-labor expenses, is \$ 256,800.00. This amount includes the estimated cost outlined in Task Order No. 3.

Salary Cost is defined as the actual salary of staff members for the actual time worked times a factor of 1.48 which accounts for employee benefits such as vacation, sick leave, unemployment and payroll taxes, contributions for Social Security and retirement benefits, life and medical insurance, tuition and other such costs.

2. **Reimbursable Expenses.** Except for certain in-house services, project expenses incurred with outside vendors will be invoiced at cost plus 10% to cover handling. These services may include, but are not limited to: shipping charges; printing; supplies; equipment; traveling expenses; special insurance; licenses; permits; or subcontracted services.

In-house services not subject to handling costs are:

Computer usage:	\$9/hr-microcomputers; \$19/hr- CADD
Transportation:	\$0.34/mile for vehicles; \$0.44/mile for 4x4 vehicles
Reproduction:	\$0.10/copy for standard page sized documents
Specialty Equipment:	In accordance with a usage rate schedule

3. **Invoices.** Malcolm Pirnie will submit invoices to Client for each month during which services were performed. Invoices may include carrying charges at 1.5% per month for delinquent payments outstanding over 30 days and applicable sales or value-added taxes.

**PROFESSIONAL SERVICES TASK ORDER**

Task Order No.: 9

Task Order Date: December 9, 1999  
(Amendment to Task Order No. 8)

Subject to the Master Services Agreement between *the City of Mason, Ohio* [Client] and *Malcolm Pirnie, Inc.* [Malcolm Pirnie], dated April 14, 1998, Client hereby authorizes Malcolm Pirnie to perform services as specified in this Task Order and in accordance with the above mentioned Agreement.

**1. Project Description:** A description of Project for which work is requested is provided in Attachment 1, incorporated into this Task Order.

Client's Project Number: \_\_\_\_\_

Project Name: Well No. 6 Installation and Filter Backwash Disposal Facility with Aerator/Contact Basin Expansion

Client's Representative: R. Ernest Stickler

**2. Scope of Work:** Malcolm Pirnie shall perform its services as described in Attachment 1, Exhibits A, B, C, and D, incorporated into this Task Order.

Malcolm Pirnie's Representative: Robert C. Yoxthimer

**3. Time Schedule:** Malcolm Pirnie shall use reasonable efforts to complete the work as follows: The basic services included in Exhibit A will be completed within approximately three (3) months from the date of execution of this Task Order and contingent upon timely participation of the Client and others. The basic services associated with Exhibits B, C, and D will be in accordance with the schedule set by the City and concurrent with the required construction of the project.

**4. Compensation:** Malcolm Pirnie's Compensation authorized under this Task Order, which shall not be exceeded without prior written authorization of Client, is:

Original Task Order No 8:	\$256,800.00
Additional Amount:	<u>\$ 36,000.00</u>
Total Compensation; Task Order No. 9:	\$292,800.00

This Task Order's Method of Payment is in accordance with Attachment 2.

**5. Special Conditions:** This Task Order is subject to the special provisions as described in Attachment 3 (letter dated October 14, 1999), attached and incorporated into this Task Order.

**6. Amendment:** This Task Order amends a previously executed Task Order:

Previous Task Order Number: 8 Previous Task Order Date: July 13, 1998

**ISSUED AND AUTHORIZED BY:**  
CITY OF MASON, OHIO

By: [Signature]  
Title: City Manager

**ACCEPTED AND AGREED TO BY:**  
MALCOLM PIRNIE, INC.

By: [Signature]  
Title: VP

# PROFESSIONAL SERVICES TASK ORDER

Task Order No.: 9

## Attachment 1 Scope of Work

The following Exhibits are attached to this Task Order, Attachment 1, and are made a part thereof:

- Exhibit A: Design Phase Services shall remain the same with the addition of the detailed design for the aerator/contact basin expansion and the additional modifications to the existing plant.
- Exhibit B: Bidding Phase shall remain the same with the addition of the bid assistance for the aerator/contact basin expansion work.
- Exhibit C: Construction Administration Services shall remain the same with the addition of the administrative work associated with the aerator/contact basin expansion.
- Exhibit D: Resident Project Representation Services shall remain the same with the addition of the resident work associated with the aerator/contact basin expansion.

# PROFESSIONAL SERVICES TASK ORDER

Task Order No.: 9

## Attachment 2 Method of Payment

### Terms of Payment

1. **Multiplier.** For Basic Services under Attachment 1, Client shall pay Malcolm Pirnie's Salary Cost times a factor of 2.15.

The estimated cost of Malcolm Pirnie's services, including non-labor expenses, is \$ 292,800.00.

Salary Cost is defined as the actual salary of staff members for the actual time worked times a factor of 1.48 which accounts for employee benefits such as vacation, sick leave, unemployment and payroll taxes, contributions for Social Security and retirement benefits, life and medical insurance, tuition and other such costs.

2. **Reimbursable Expenses.** Except for certain in-house services, project expenses incurred with outside vendors will be invoiced at cost plus 10% to cover handling. These services may include, but are not limited to: shipping charges; printing; supplies; equipment; traveling expenses; special insurance; licenses; permits; or subcontracted services.

In-house services not subject to handling costs are:

Computer usage:	\$9/hr-microcomputers; \$19/hr- CADD
Transportation:	\$0.34/mile for vehicles; \$0.44/mile for 4x4 vehicles
Reproduction:	\$0.10/copy for standard page sized documents
Specialty Equipment:	In accordance with a usage rate schedule

3. **Invoices.** Malcolm Pirnie will submit invoices to Client for each month during which services were performed. Invoices may include carrying charges at 1.5% per month for delinquent payments outstanding over 30 days and applicable sales or value-added taxes.